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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,759	10/22/2003	Dae-Ho Choo	6192.0323.US	6019

7590 05/05/2004

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EXAMINER

GRAY, LINDA LAMEY

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,759

Applicant(s)

CHOO ET AL

Examiner

Linda L Gray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,11-13,15,16,18-20 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 2,6-10,14,17,21-25 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Detailed Action

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 11-13, 16, 18-20, 26-28, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamabuchi.

Claims 1 and 16, Yamabuchi teaches an apparatus of attaching polarizing plate

15a to a liquid crystal display cell including the following:

- (a) cutting out module 80 that cuts out plate 15a from mother polarizing plate 15,
- (b) protection sheet strip module 25 that strips off protection sheet 15c from plate 15a, and
- (c) polarizing plate attaching module 100 that attaches plate 15a to a first face of the cell of an assembled substrate 30.

Claims 1 and 16, Note from Figures 1 and 2 that modules 80, 25, and 100 are supported in a direct, continuous manner, one after another, which is indicative of a single base body to support the modules; however, Yamabuchi does not "specifically" recite a single base body.

However, the use of a single base body to support all modules of an apparatus is conventional in the laminating art to provide a continuous and compact process

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therefrom, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for such in Yamabuchi.

Note for **claim 16** that the apparatus of Yamabuchi is used in a continuous manner where modules 80, 25, and 100 cut plate 15 therealong where the claim limitation of second modules of claim 16 and the second plate 15 are inclusive of the modules and plate of Yamabuchi being used more than one time in consecutive manner.

Claims 3 and 18, Yamabuchi teaches polarizing plate loader 60, on the body, for supplying plate 15. **Claims 4-5 and 19-20**, Yamabuchi teaches assembled substrate loader and unloader 110, on the body, for supplying and removing substrates 30. **Claims 11 and 26**, Yamabuchi teaches module 100 to include supporting unit (module 110) and attaching unit 100a/100b to attaching plate 15a to the cell. **Claim 15**, Yamabuchi teaches substrate 30 to include a plurality of cells in a matrix where plate 15a is cut one by one to fill the rows and columns.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

***Claims 12-13 and 27-28**, Yamabuchi does not teach module 110 to include a plurality of holes and including an absorbing part that vacuum absorbs substrate 30 thereon including a first vacuum pipe and generating member connected thereto.*

However, it is conventional to provide a holding module with a plurality of holes and an absorbing part that vacuum absorbs a substrate thereon including a vacuum pipe and a generating member connected thereto to keep the substrate securely in place before receiving a laminate material, and for this it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Yamabuchi that module 110 includes a plurality of holes and including an absorbing part that vacuum absorbs substrate 30 thereon including a first vacuum pipe and generating member connected thereto.

3. Claims 1, 3-5, 11-13, 16, 18-20, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura.

Claims 1 and 16, Kitamura teaches an apparatus of attaching polarizing plate 29 to a liquid crystal display cell including the following:

- (a) cutting out module 27 that cuts out plate 29 from mother polarizing plate 21,
- (b) protection sheet strip module 31 that strips off protection sheet 18 from plate 29, and
- (c) polarizing plate attaching module 34 that attaches plate 29 to a first face of the cell of an assembled substrate 37.

***Claims 1 and 16**, Note form Figure 1 that modules 27, 31, and 34 are supported in a direct, continuous manner, one after another, which is indicative of a single base body to support the modules; however, Kitamura does not "specifically" recite a single base body.*

However, the use of a single base body to support all modules of an apparatus is conventional in the laminating art to provide a continuous and compact process therefrom, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for such in Kitamura.

Note for **claim 16** that the apparatus of Kitamura is used in a continuous manner where modules 27, 31, and 34 cut plate 29 therealong where the claim limitation of second modules of claim 16 and the second plate 29 are inclusive of the modules and plate of Kitamura being used more than one time in consecutive manner.

Claims 3 and 18, Kitamura teaches polarizing plate loader 23, on the body, for supplying plate 21. **Claims 4-5 and 19-20**, Kitamura teaches assembled substrate loader and unloader 35, on the body, for supplying and removing substrates 37. **Claims 11 and 26**, Kitamura teaches module 34 to include supporting unit (module 35) and attaching unit which is the head of 34 to attaching plate 29 to the cell.

Claims 12-13 and 27-28, Kitamura does not teach module 35 to include a plurality of holes and including an absorbing part that vacuum absorbs substrate 37 thereon including a first vacuum pipe and generating member connected thereto.

However, it is conventional to provide a holding module with a plurality of holes and an absorbing part that vacuum absorbs a substrate thereon including a vacuum pipe and a generating member connected thereto to keep the substrate securely in place before receiving a laminate material, and for this it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Yamabuchi that module 110 includes a plurality of holes and including an absorbing part that vacuum absorbs substrate 30 thereon including a first vacuum pipe and generating member connected thereto.

4. Claims 1, 3-5, 11-13, 16, 18-20, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al.

Claims 1 and 16, Akimoto et al. teach an apparatus of attaching polarizing plate 52 to a liquid crystal display cell including the following:

- (a) cutting out module 50 that cuts out plate 52 from mother polarizing plate 51,
- (b) protection sheet strip module 54 that strips off protection sheet 53 from plate 52, and
- (c) polarizing plate attaching module 58 that attaches plate 52 to a first face of the cell of an assembled substrate 30.

Claims 1 and 16, Note form Figures 1 and 2 that modules 50, 54, and 58 are supported in a direct, continuous manner, one after another, which is indicative of a single base body to support the modules; however, Akimoto et al. do not "specifically" recite a single base body.

However, the use of a single base body to support all modules of an apparatus is conventional in the laminating art to provide a continuous and compact process therefrom, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for such in Akimoto et al.

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Note for **claim 16** that the apparatus of Yamabuchi is used in a continuous manner where modules 50, 54, and 58 cut plate 51 therealong where the claim limitation of second modules of claim 16 and the second plate 51 are inclusive of the modules and plate of Akimoto et al. being used more than one time in consecutive manner.

Claims 3 and 18, Akimoto et al. teach a polarizing plate loader (Fig 2), on the body, for supplying plate 51. **Claims 4-5 and 19-20**, Akimoto et al. teach assembled substrate loader 35 and an unloader, on the body, for supplying and removing substrates 30. **Claims 11 and 26**, Akimoto et al. teach module 58 to include supporting unit (not shown) and attaching unit which is the head of module 58 to attaching plate 52 to the cell.

***Claims 12-13 and 27-28**, Akimoto et al. do not teach module the supporting unit to include a plurality of holes and including an absorbing part that vacuum absorbs substrate 30 thereon including a first vacuum pipe and generating member connected thereto.*

However, it is conventional to provide a holding module with a plurality of holes and an absorbing part that vacuum absorbs a substrate thereon including a vacuum pipe and a generating member connected thereto to keep the substrate securely in place before receiving a laminate material, and for this it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Yamabuchi that module 110 includes a plurality of holes and including an absorbing part that vacuum absorbs substrate 30 thereon including a first vacuum pipe and generating member connected thereto.

5. Claims 1, 3-5, 11-13, 16, 18-20, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable JP614.

Claims 1 and 16, JP614 teaches an apparatus of attaching polarizing plate 4 to a liquid crystal display cell including the following:

- (a) a cutting out module that cuts out plate 4 from a mother polarizing plate,
- (b) protection sheet strip module (shown in Figs 2-3) that strips off protection sheet 3 and 3' from plate 4, and

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(c) polarizing plate attaching module q that attaches plate 4 to a first face of the cell of an assembled substrate 10.

Claims 1 and 16, Note from Figures 1-3 that modules the three modules are supported in a direct, continuous manner, one after another, which is indicative of a single base body to support the modules; however, JP614 does not "specifically" recite a single base body

However, the use of a single base body to support all modules of an apparatus is conventional in the laminating art to provide a continuous and compact process therefrom, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for such in JP614 .

Note for **claim 16** that the apparatus of JP614 is used to cut many plates 4 from the mother plate and that stripping and attaching is in a continuous manner where the claim limitation of second modules of claim 16 and the second mother plate are inclusive of the modules and plate of JP614 being used more than one time in consecutive manner.

Claims 3-5 and 18-20, JP614 does not teach a polarizing plate loader, on the body, for supplying the mother plate and does not teach an substrate loader and unloader, on the body, for supplying and removing substrates 10. .

However, it is convention in the art of bonding polarizing plates to liquid crystal displays to provide mother plates and substrates loaders and substrate unloaders such that plate 4 can be continuous produced and substrate 10 can be continuously produce and removed as desired by JP614, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for such in JP614.

Claims 11-13 and 26-28, JP614 does not teach module q to a include supporting unit including a plurality of holes and including an absorbing part that vacuum absorbs substrate 10 thereon including a first vacuum pipe and generating member connected thereto, but does not teach an attaching unit which is the head of item q.

However, it is conventional to provide a holding module with a plurality of holes and an absorbing part that vacuum absorbs a substrate thereon including a vacuum pipe and a generating member connected thereto to keep the substrate securely in place before receiving a laminate material, and for this it would have been obvious to a person

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of ordinary skill in the art at the time the invention was made to have provided in Yamabuchi that module 110 includes a plurality of holes and including an absorbing part that vacuum absorbs substrate 30 thereon including a first vacuum pipe and generating member connected thereto.

6. Claims 1, 3-5, 11-13, 16, 18-20, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable Kaneko.

Claims 1 and 16, Kaneko teaches an apparatus of attaching polarizing plate 1 to a liquid crystal display cell including the following:

- (a) cutting out module 2/4 that cuts out plate 1 from mother polarizing plate 1b,
- (b) protection sheet strip module at the corner under 16 that strips off protection sheet 10 from plate 1, and
- (c) polarizing plate attaching module 16 that attaches plate 1 to a first face of the cell of an assembled substrate 18.

Claims 1 and 16, Note from Figure 2 that the three modules are supported in a direct, continuous manner, one after another, which is indicative of a single base body to support the modules; however, Kaneko does not "specifically" recite a single base body.

However, the use of a single base body to support all modules of an apparatus is conventional in the laminating art to provide a continuous and compact process therefrom, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for such in Kaneko

Note for **claim 16** that the apparatus of Kaneko is used in a continuous manner where the three modules cut plate 1b therealong where the claim limitation of second modules of claim 16 and the second plate 1 are inclusive of the modules and plate of Kaneko being used more than one time in consecutive manner.

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Claims 3 and 18, Kaneko teaches polarizing plate loader 20, on the body, for supplying plate 1b. **Claims 4-5 and 19-20**, Kaneko teaches assembled substrate loader and unloader 17, on the body, for supplying and removing substrates 18. **Claims 11 and 26**, Kaneko teaches module 16 100 to include supporting unit (module 17) and an attaching unit which is the head of item 16 for attaching plate 1 to the cell.

***Claims 12-13 and 27-28**, Kaneko does not teach module 17 to include a plurality of holes and including an absorbing part that vacuum absorbs substrate 18 thereon including a first vacuum pipe and generating member connected thereto.*

However, it is conventional to provide a holding module with a plurality of holes and an absorbing part that vacuum absorbs a substrate thereon including a vacuum pipe and a generating member connected thereto to keep the substrate securely in place before receiving a laminate material, and for this it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Yamabuchi that module 110 includes a plurality of holes and including an absorbing part that vacuum absorbs substrate 30 thereon including a first vacuum pipe and generating member connected thereto.

Allowable Subject Matter

7. Claims 2 and 17, 6-9 and 21-24, 10 and 25, and 14 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

claims 2 and 17: the prior art of record does not teach a turning over module between the strip and attaching modules, on the body, for turning the plate upside down,

claims 6 and 21: the prior art of record does not teach the cutting module to include an x-axis blade module for cutting in a first direction and a y-axis blade module for cutting in a second direction substantially perpendicular to the first direction,

claims 10 and 25: the prior art of record does not teach the strip module to include a first picker that picks up the protection sheet by vacuum absorption and a drive for punching and pulling the picker towards the sheet, and

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claims 14 and 29: the prior art does not teach that the attaching unit includes a pushing plate to push the cut plate towards the cell and a drive for the pushing plate.

9. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Gray whose telephone number is (571) 272-1228. The examiner can normally be reached Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino, can be reached at (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

llg

May 3, 2004

Linda Gray
LINDA GRAY
PRIMARY EXAMINER